

## NEW DESCRIPTIONS

### FIRST RECORD OF GENUS *STRONGYLOGASTER* DAHLBOM (HYMENOPTERA: SYMPHYTA TENTHREDINIDAE: SELANDRIINAE) WITH TWO NEW SPECIES FROM INDIA<sup>1</sup>

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(With six text-figures)

With the description of two new species, the genus *Strongylogaster* Dahlbom is recorded for the first time from India. The new species are *Strongylogaster hepaticolor* sp. n from Ghyagi (Himachal Pradesh) and *Strongylogaster smithi* sp.n from Narkanda (Himachal Pradesh). The detailed description, collection data and diagnostic features of each species is given. A key is provided to distinguish the Oriental species of this genus.

#### INTRODUCTION

Genus *Strongylogaster* was erected by Dahlbom (1835) taking *Tenthredo cingulata* Fabricius (subsequent designation by MacGillivray, 1908) as its type species. Ross (1937) synonymized by *Thrinax* Konow 1885 under this genus. Malaise (1963) in his key to the world genera of Selandriinae treated *Thrinax* Konow, 1885 as a separate genus. But Smith (1969) again followed Ross (1937) and synonymized *Thrinax* under *Strongylogaster*.

As far as the Oriental region is concerned, Rohwer (1916) reported a species of *Thrinax* i.e. *T. formosana* from Formosa, and Malaise (1961) two other species of *Thrinax birmana* and *Thrinax sino-birmana* from Burma. However, keeping in view the present status of *Thrinax* and following Smith (1969), the species described by Rohwer (1916) and Malaise (1961) are brought under *Strongylogaster* Dahlbom 1835. In the present communication two new species i.e. *Strongylogaster hepaticolor* sp.n. and *Strongylogaster smithi* sp.n. are added. A workable key to all five Oriental species of this genus is provided.

#### Genus *Strongylogaster* Dahlbom

*Tenthredo* subgenus *Strongylogaster* Dahlbom, 1835; Hartig, 1837.

*Strongylogaster*, Costa 1859, Thomson 1870, Andre 1879, Cresson 1880, Cameron 1882, Cameron 1883, Konow 1887, Dalla Torre 1894, MacGillivray 1894, Konow 1905, MacGillivray 1908, Enslin 1914, MacGillivray 1916, Enderlein 1920, Yuasa 1922, Ross 1937, Takeuchi 1941, Berland 1947, Ross 1951, Zhelokhovtsev 1951, Benson 1952, Lorenz and Kraus 1957, Burks 1958, Malaise 1963.

Type: *Tenthredo cingulata* Fabricius. Designated by MacGillivray, 1908.

*Thrinax* Dalla Torre 1894, Konow 1905, MacGillivray 1908, Enslin 1913, MacGillivray 1916, Rohwer 1916, Yuasa 1922, Ross 1937 (= *Strongylogaster* Dahlbom; Takeuchi 1941, Berland 1947, Zhelokhovtsev 1951, Malaise 1961, 1963.

Type: *Strongylogaster contigua* Konow. Designated by MacGillivray 1908.

*Pseudotaxonus* Costa 1894, Enslin 1914, Ross 1937 (= *Strongylogaster* Dahlbom) Takeuchi 1941, Berland 1947, Malaise 1963.

Type: *Tenthredo filicis* Klug, Monotypic. *Polystichophagus* Ashmead 1898, Konow 1905 (= *Strongylogaster* Dahlbom; Enslin 1914 (= *Pseudotaxonus* A. Costa)

Type: *Tenthredo filicis* Klug. Original designation.

*Prototaxonus* Rohwer, 1910; Malaise, 1933; Ross, 1937; (= *Strongylogaster* Dahlbom).

Type; *Prototaxonus typicus* Rohwer. Monotypic.

**Description:** According to Smith (1969) this genus is characterized by antenna filiform;

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second segment disc like, wider than long; third and fourth segments subequal in length; segments beyond third gradually decreasing in length. Postgenal carina present; clypeus very shallowly to deeply emarginate; malar space narrower or wider than diameter of front ocellus. Epicnemium present as narrow raised shoulder, separated from mesepisternum by furrow. Tarsal claw simple or with small or large inner tooth; basal lobe absent. Forewing with anal crossvein present or absent. Hind wing with anellan cell sessile or with short petiole.

The terminology of Malaise (1945) and Ross (1937 & 1945) has been followed. Holotypes will be deposited in National Pusa Collections, IARI, New Delhi after this work is published.

**Abbreviations:** AT = apical tooth, CL = clypeus, EL = eye length, IATS = inner apical tibial spur, ICD = intercenchral distance, IDMO = interocular distance at the level of median ocellus, ITD = intertegular distance, LB = labrum, LID = lower interocular distance, MB = metabasitarsus, OATS = outer apical tibial spur, OCL = ocello-occipital line, OOL = oculo-ocellar line, POL = postocellar line, SAT = sub-apical tooth.

#### KEY TO ORIENTAL SPECIES

1. Clypeus, labrum, trochanter, femur and tibiae of meso- and meta legs not yellow ..... 2
- Clypeus, labrum, trochanter, femur and tibiae of meso- and meta legs yellow .. *Strongylogaster formosana* (Rohwer, 1916)
2. Postocellar area twice as broad as long ..... 3
- Postocellar area twice as broad as long or broader than long at most in ratio of 3:2 ..... 4
3. Scutellum with 4-5 large punctures on its posterior slope; base of costa and brachius pale; 3rd and 4th abdominal tergites entirely whitish yellow in female and whitish yellow beneath in male .....  
..... *Strongylogaster birmana* (Malaise, 1961)
- Scutellum not punctate; costa and brachius brown; 3rd and 4th abdominal tergites reddish in female only in middle above and below, but, in the male, the two segments are reddish with

only a rounded black spot on each deflexed side of tergites .....

*Strongylogaster sinobirmana* (Malaise, 1961)

4. Postocellar area almost as long as broad; hind orbits distinctly carinated; median fovea not divisible into 2 halves; malar space 1x diameter of median ocellus; apex of stigma yellow; scape below, clypeus more or less, postocellar area, mesonotal middle lobe except its anterior border, mesoscutellum appendage and metascutellum fuscoferruginous .....

..... *Strongylogaster hepaticolor* sp.n.

Postocellar area broader than long as 3:2; hind orbits carinated only below; median fovea divisible into 2 halves by a transverse ridge; malar space 0.8x diameter of median ocellus; stigma black; scape, clypeus, post-ocellar area and thorax black .....

..... *Strongylogaster smithi* sp.n.

#### *Strongylogaster hepaticolor* sp. n.

(Figs. 1, 3, 5)

**Female :** Average length 11 mm. Body black, and the following fuscoferruginous: scape below, clypeus more or less, postocellar area, middle lobe except its anterior border, area anterior and lateral to mesoscutellum, mesoscutellum, appendage, metascutellum broad posterior margin of tergites 2-8, 9 entirely, posterior margin of all sternites. Yellowish white areas include posterior and postero-lateral angles of pronotum, tegula, distal half of metacoxa, metatrochanter, apices of all femora, four front tibiae entirely, proximal 1/3 metatibia, probasitarsus. Rest of legs fuscous. Wings yellowish hyaline, costa and apex of stigma yellow, rest of stigma and venation fuscous.

Antenna filiform, 2.2 x head width, scape broader than long, pedicel disc-like, shorter than its apical width and scape, segment 3 shorter than 4, ratio 7:8. Clypeus convex, anterior margin shallowly emarginate (Fig. 1). Labrum broader than long as 3:1 with rounded anterior margin. Malar space 1x diameter of median ocellus. Supraclypeal area subtriangularly raised with

blunt longitudinal carina. LID:IDMO:EL :: 2:2.3:1.7; OOL:POL:OCL :: 2:1:1.9. Frontal area above level of eyes and surrounded by low and blunt ridges starting from lateral ocelli. Supra-antennal tubercles insignificant, posteriorly continuous with similar frontal ridges. Median fovea shallow with uneven bottom and continuous upto middle supra-antennal pit. Circum-, inter-, and postocellar furrows distinct. Lateral furrows sunken, diverging posteriorly and abruptly ending halfway to hypothetical posterior margin of head. Postocellar area subconvex, almost as long as broad. Inner margins of eyes subparallel. Hind orbits short, narrowing behind eyes and distinctly carinated. Mesoscutellum flat, appendage not carinate ITD:ICD :: 4:1. Epicnemium narrow, distinct and separated from mesopleuron by a distinct groove. Mesepisternum obtusely raised without carina or acute apex. Subapical tooth of tarsal claw much shorter than apical one (Fig. 3). Metabasitarsus distinctly shorter than all following joints combined in the ratio 3:4. IATS:MB:OATS :: 2:7:1.9.

Head on and around frontal area rugose with dense and irregular punctures. Temples and posterior orbits only sparsely punctate. Mesonotal middle lobe with large, dense, and distinct punctures except along median suture. Mesonotal lateral lobes almost apunctate, except a few isolated punctures on the inner side adjoining mesonotal middle lobe. Mesoscutellum with a few distinct, scattered punctures on its anterior slope and a row of similar punctures along its posterior border. Mesepisternum with large, deep, pit-like distinct punctures and the distance between punctures equal to diameter of each puncture. Mesosternum with very minute, shallow punctures. Abdomen minutely and shallowly punctate, subshining. Body covered with a mixture of silvery and golden pubescence. Lancet with 12 serrulae (Fig. 5).

**Male:** Unknown.

**Holotype:** Female, Himachal Pradesh; Ghyagi, 2500 m, 29.v.1984.

**Paratypes:** Himachal Pradesh: Narkanda, 2700 m, (2 females) 24.v.1984; Kothi, 2700 m, (1 female), 2.vi.1984; Kufri, 2500 m, (1 female) 23.v.1984.

**Population variation:** The colour of scape and clypeus may be fuscoferruginous to black, metafemur may be entirely yellow.

**Distribution:** India: Himachal Pradesh.

**Diagnosis:** *Strongylogaster hepaticolor* exhibits some similarity with *Strongylogaster birmana*, but it can be clearly distinguished from the latter by the fuscoferruginous colour of scape, clypeus, meso- and metanotum, broad posterior margin of all tergites and all sternites (scape, clypeus, meso- and metanotum black; 3rd and 4th abdominal segments entirely yellow in female, yellow beneath in the male in *Strongylogaster birmana*); large, dense and distinct punctures on mesonotal middle lobe and mesepisternum (only 4-5 large punctures on posterior slope of mesoscutellum in *Strongylogaster birmana*). Postocellar area as long as broad (twice as broad as in *Strongylogaster birmana*).

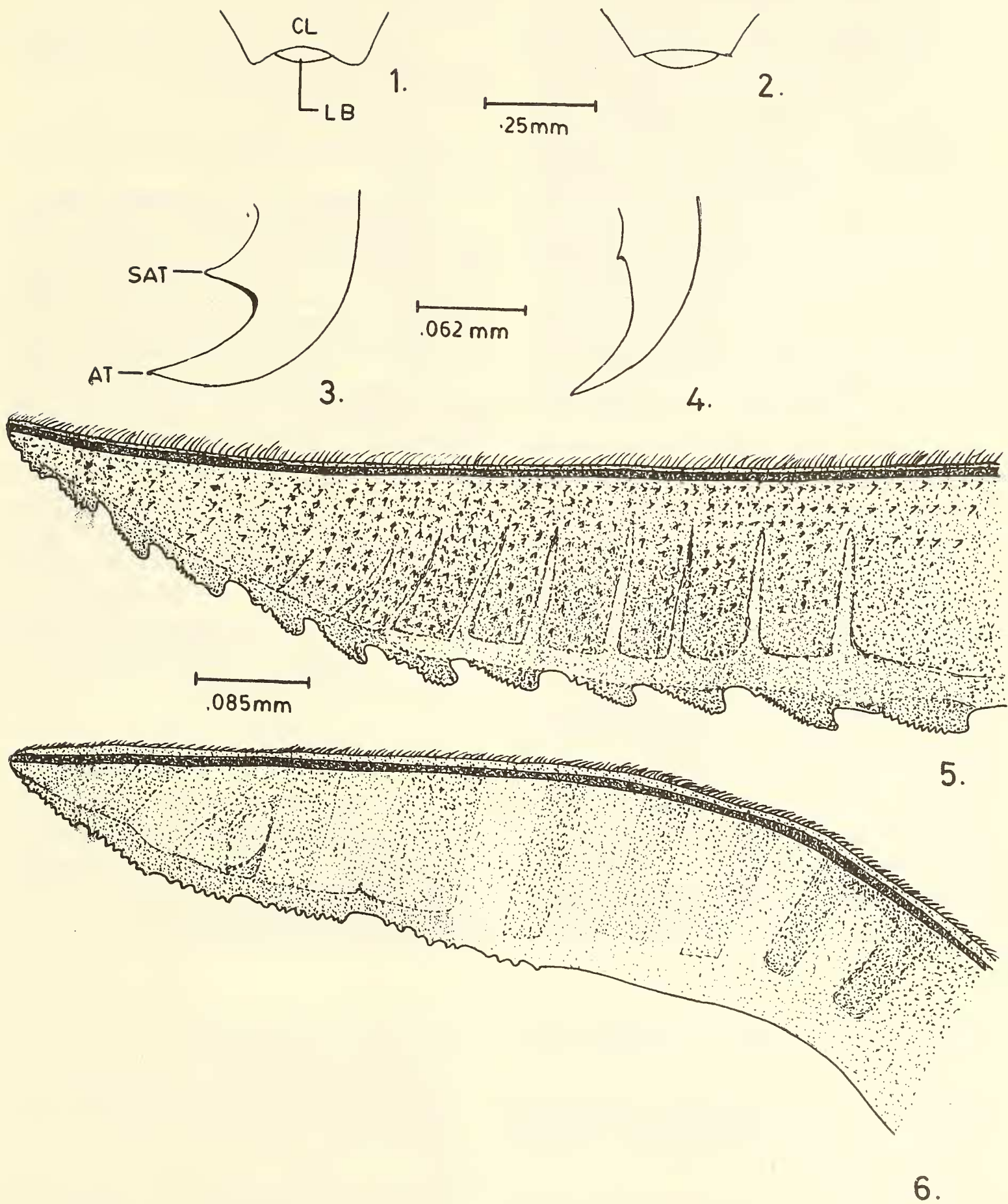
**Etymology:** The species name is based on its dominating liver brown colour.

*Strongylogaster smithi* sp.n.

(Figs. 2, 4, 6)

**Female:** Length 11 mm. Body black, with whitish yellow broad dorsolateral angle of pronotum, tegula, extreme posterior margin of tergites 1-7 and sternites 1-6, apices of all femora, tibiae and tarsi of four front legs and proximal 1/3 metatibia. Rest of metatibia and metatarsal joints fuscous. Wings hyaline, stigma and venation brownish black.

Antenna filiform, length 2.1x head width, scape as long as its apical width, pedicel half the length of scape as well as of its apical width, segment 3 and 4 as 7:8. Clypeus convex, anterior margin almost truncate (Fig. 2). Labrum broader than long as 3.5:1, with rounded anterior margin. Malar space 0.8x diameter of median ocellus.



Figs. 1-6. Clypeus: 1. *Strongylogaster hepaticolor* sp. n.; 2. *Strongylogaster smithi* sp. n. Tarsal Claw: 3. *Strongylogaster hepaticolor* sp. n.; 4. *Strongylogaster smithi* sp. nov. Lancet: 5. *Strongylogaster hepaticolor* sp. n.; 6. *Strongylogaster smithi* sp.n.

Supraclypeal area subtriangularly raised with blunt longitudinal carina. LID:IDMO:EL :: 2:2.4:1.8; OOL:POL:OCL :: 1.3:1:1. Frontal area at the eye level surrounded by low and blunt ridges starting from lateral ocelli. Supra-antennal tubercles low and posteriorly continuous with similar frontal ridges. Median fovea divisible into two halves by a transverse ridge of the magnitude of frontal ridges, anterior half with a deep semicircular pit almost of the size of median ocellus and posterior half with an uneven bottom having three parallel longitudinal carinas. Circum-, inter- and postocellar furrows distinct. Lateral furrows distinct, diverging backwards, and abruptly ending halfway to the hypothetical posterior margin of head. Postocellar area convex, with a median longitudinal groove and broader than long, as 3:2. Inner margins of eyes subparallel. Hind orbits short, narrowing behind, carinated only below. Mesoscutellum flat, appendage not carinate. ITD:ICD=3.5:1. Epicnemium subconvex, separated from the mesopleuron by a distinct furrow. Mesepisternum obtusely raised without carina or acute apex. Tarsal claw with a very minute subapical tooth (Fig. 4). Metabasitarsus shorter than all following joints combined as 4:5. IATS:MB:OATS::2:7.5:1.9.

Head distinctly, minutely and densely punctate on and around frontal area: temples and hind orbits apunctate, subshining. Mesonotum and mesopleuron apunctate and shining; mesoscutellum apunctate, except a few large and distinct punctures along its posterior border. Abdomen

finely cross-striated, subshining. Pubescence negligible. Lancet with 7 serrulae (Fig. 6).

**Male:** Unknown.

**Holotype:** Female, Himachal Pradesh: Narkanda, 2700m, 25.v.1984.

**Paratype:** None.

**Population variation:** Single specimen examined.

**Distribution:** India: Himachal Pradesh.

**Diagnosis:** This species is characterized by the median fovea divisible into 2 halves by a transverse ridge, clypeus truncate, thorax almost apunctate, abdomen finely cross-striated and tarsal claw with a very minute subapical tooth. Though quite distinct, still it can be compared and demarcated from *Strongylogaster hepaticolor* as follows: Postocellar area broader than long as 3:2 in *S. smithi* (Postocellar area almost as long as broad in *S. hepaticolor*); scape, clypeus, postocellar area and thorax black in *S. smithi* (scape, clypeus, postocellar area and thorax fuscoferruginous in *S. hepaticolor*).

**Etymology:** The species is named after Dr. D. R. Smith of USNM, Washington, an authority on sawfly taxonomy.

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